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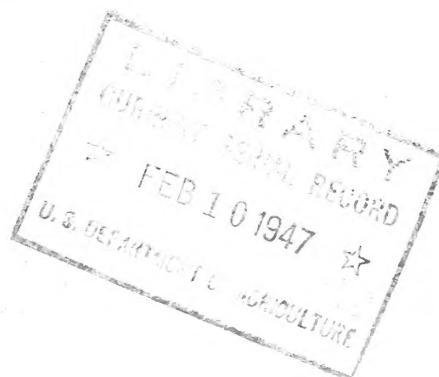
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## THE BRAZILIAN TOBACCO INDUSTRY

by

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# THE BRAZILIAN TOBACCO INDUSTRY

## SUMMARY

Brazil ranks among the world's foremost producers of leaf tobacco, and for many years its tobacco exports have been important in world trade. Numerous varieties are produced in Brazil, but the cigar types of the State of Bahia and the flue-cured and air-cured tobaccos of Rio Grande do Sul are the most important, both from the standpoint of domestic usage and exports. Heavy demands at favorable prices, from both domestic manufacturers and foreign countries, have encouraged expansion in tobacco production, and the 1946 harvest may be estimated at about 240 million pounds, or 20 percent greater than the prewar (1935-39) average outturn.

The immediate outlook is for a continued high level of production. Both governmental and trade organizations are fostering improved methods of cultivation, more widespread use of fertilizers, and more uniform grading and marketing practices in order to improve the quality of the country's tobacco and to encourage expansion in its use abroad.

United States growers and exporters of tobacco are interested in the competition provided by Brazil in foreign markets. Brazil's exports of leaf are largely used in the manufacture of cigars and dark cigarettes, whereas leaf from the United States is usually utilized for cigarette manufacture and in the preparation of smoking mixtures. In this connection, however, it should be pointed out that, although Brazilian leaf does not compete directly with United States leaf, there is indirect competition which should not be overlooked. The availability of large exportable surpluses in Brazil necessarily results in the displacement of leaf from other exporting countries, among them the United States. For many years Brazil's exports consisted almost entirely of Bahia cigar types, but recently its cigarette leaf, light air-cured and flue-cured, has found favor in world markets. The extent to which such leaf may eventually compete with United States leaf, especially in markets where price is the principal factor affecting importation, cannot be foreseen with any certainty. But the basic conditions favorable to expanded tobacco exports are present in Brazil, which has never been an important purchaser of leaf tobacco or tobacco products.

Per capita consumption of all tobacco products in Brazil may be estimated at from 2.5 to 3 pounds per annum. Total consumption of tobacco products, particularly machine-made cigarettes, has increased in recent years. The apparent preference for cigarettes made from flue-cured and air-cured leaf, somewhat similar to United States Burley, has encouraged production of cigarette leaf in Rio Grande do Sul. The

current high wages and employment augurs well for greater consumption of tobacco products. The use of imported products has never been great; and, although United States cigarettes are popular, duties and internal tax differentials afford adequate protection to domestic manufacturers.

### PRODUCTION

Tobacco has been cultivated in Brazil for several centuries. The French Carmelite monk André Thevet, who in 1555 visited the area now included in the State of Bahia, relates that the natives used a great deal of tobacco. Both men and women practiced the art of smoking, using tobacco, which they called petum, rolled in a dried palm, or corn, leaf to make crude cigars. These aborigines of the coastal regions even ascribed curative properties to the plant and claimed that its use enabled them to be particularly valorous in battle.

The European colonizers were quick to realize the commercial possibilities of tobacco cultivation. During the early 1600's they began to grow tobacco in the Province of Bahia. The tobacco industry in that Province, favored by the area's geographical position and political preeminence, proved extremely profitable. Growers were able to ship their product to ready markets in Portugal, Spain, and West Africa. Soon other regions to the north and south of Bahia undertook the cultivation of tobacco on a commercial basis.

Brazil is the largest producer of leaf tobacco in South America, and among the countries of the Western Hemisphere its annual harvest is exceeded only by that of the United States. There are but four or five countries in the world where tobacco production exceeds that of Brazil. For many years a large exportable surplus of leaf has found its way into the trade channels of the world, but particularly those of northern Europe. Brazil has become one of the most important countries producing and exporting tobacco.

Tobacco is produced in every State and Territory of Brazil. In general, the tobaccos grown within the country fall into three principal categories: (1) Cigar types, air-cured, produced chiefly in Bahia, Minas Gerais, and most other States; (2) air-cured, used chiefly in blending with other types in the manufacture of cigarettes, produced in Rio Grande do Sul and Santa Catarina; and (3) flue-cured, produced chiefly in the latter two States.

Long-time records of Brazil's total tobacco production are incomplete, but export data furnish indications as to the rapid increase in production during the past century and a half. In 1821, for example, exports totaled about 15 million pounds; in 1870, they amounted to 29 million; and in 1886 they reached 50 million pounds. Earliest reliable data regarding the country's total production are for the period beginning with 1920. During the 5 years 1920-24, Brazil's tobacco production

averaged 164 million pounds annually. The crop averaged 211 million pounds annually during the 5 years 1928-32, and since that period it has ranged around 200 million pounds per year. Preliminary and incomplete data regarding the 1946 crop, however, indicate that about 240 million pounds were produced, or approximately the same as the record 1929 outturn of 242 million pounds. (For information covering tobacco production in Brazil, by principal States, for the period 1935-44, see table 1.)

Table 1. - Acreage, production, and yield of tobacco in Brazil, by States, average 1935-39, annual 1940-44

[Year of harvest]

State	Average 1935-39			1940		
	Acreage	Production	Yield per acre	Acreage	Production	Yield per acre
	<u>Acres</u>	<u>1,000 pounds</u>	<u>Pounds</u>	<u>Acres</u>	<u>1,000 pounds</u>	<u>Pounds</u>
Bahia .....	80,420	68,916	857	92,181	70,206	762
Rio Grande do Sul .....	88,446	62,291	704	65,071	68,259	1,049
Minas Gerais .....	30,790	29,395	955	24,643	24,471	993
Santa Catarina .....	9,674	7,889	815	19,113	14,535	760
Others .....	44,607	32,091	719	37,243	31,454	845
Total .....	253,937	200,582	790	238,251	208,925	877
	1941			1942		
	Acreage	Production	Yield per acre	Acreage	Production	Yield per acre
	<u>Acres</u>	<u>1,000 pounds</u>	<u>Pounds</u>	<u>Acres</u>	<u>1,000 pounds</u>	<u>Pounds</u>
Bahia .....	82,351	66,717	810	81,704	65,661	804
Rio Grande do Sul .....	73,619	76,120	1,034	77,434	76,449	987
Minas Gerais .....	24,253	22,327	921	23,173	22,974	991
Santa Catarina .....	18,864	13,277	704	15,896	9,391	591
Others .....	38,903	31,739	816	41,364	32,059	775
Total .....	237,990	210,180	883	239,571	206,534	862
	1943			1944		
	Acreage	Production	Yield per acre	Acreage	Production	Yield per acre
	<u>Acres</u>	<u>1,000 pounds</u>	<u>Pounds</u>	<u>Acres</u>	<u>1,000 pounds</u>	<u>Pounds</u>
Bahia .....	80,992	65,036	803	92,183	78,195	848
Rio Grande do Sul .....	76,917	61,371	798	75,104	78,076	1,040
Minas Gerais .....	22,509	22,084	981 <sup>a/</sup>	22,000 <sup>a/</sup>	21,000	955
Santa Catarina .....	13,840	9,074	656	8,273	8,691	1,051
Others .....	41,824	30,557	731 <sup>a/</sup>	39,500 <sup>a/</sup>	30,000	759
Total .....	236,082	188,122	797 <sup>a/</sup>	237,060 <sup>a/</sup>	215,962	911

<sup>a/</sup> Office estimate, based on incomplete data.

Source: Anuario Estatístico do Brasil and U. S. consular reports.

In recent years (1935-44) Brazil's tobacco area has averaged about 246,000 acres, with yields of from 800 to 900 pounds per acre. In the States producing tobacco for export, principally Bahia and Rio Grande do Sul, yields usually exceed those in other States which produce leaf primarily for local consumption. Variations in weather conditions play an important part in tobacco yields, but soil conditions are an equally important factor. The States of Bahia and Rio Grande have several experimental stations which have tested artificial fertilizers and made recommendations to farmers regarding their application. Growers have been successfully encouraged to apply fertilizers in an effort to restore the fertility of the soil, depleted through many years of tobacco propagation. Crop rotation, however, has never been practiced extensively.

Brazil, the largest country in the Western Hemisphere, extends roughly from the Equator to 33° South Latitude, and the climatic conditions in the various States show wide differences. Accordingly, the tobacco-growing seasons vary greatly. The times of seeding, planting, and harvesting tobacco in the chief producing States are as follows:

<u>State</u>	<u>Seeding</u>	<u>Transplanting<sup>a/</sup></u>	<u>Harvesting<sup>b/</sup></u>
Bahia . . . . .	Mar. to May	Apr. to July	Aug. to Dec.
Minas Gerais. . . . .	Jan. to Mar.	Feb. to May	June to Oct.
São Paulo . . . . .	Aug. to Nov.	Sept. to Jan.	Jan. to June
Santa Catarina. . . . .	July to Sept.	Aug. to Nov.	Dec. to Apr.
Rio Grande do Sul . . . . .	Aug. to Sept.	Sept. to Nov.	Jan. to Apr.

a. Transplanting takes place from 50 days to two months after seeding.

b. The harvest date is from 4 to 5 months after transplanting.

Only Bahia, Rio Grande, and Santa Catarina produce significant quantities of tobacco for export or for interstate trade. Minas Gerais produces considerable amounts of leaf for interstate trade but only insignificant amounts for export. In other States, such as Ceará, Paraíba, Pernambuco, and Goiás, most of the leaf is consumed locally. The following discussion on tobacco production in individual States is, therefore, confined chiefly to those whose leaf figures primarily in interstate or export trade; namely, Bahia, Rio Grande, Santa Catarina, and Minas Gerais. These four States produce about 85 percent of the country's total tobacco crop and supply the bulk of the exports, as well as the leaf moving across State boundaries.

#### Bahia

Tobacco growing in Bahia ranks next after cacao production, the State's principal agricultural industry. Most of the leaf is grown by numerous farmers in small holdings rather than on a plantation scale. It constitutes a cash crop, readily marketable, for use in manufacturing



cigars locally, or for export. Leaf tobacco is usually purchased by dealers who advance money to the individual farmer at the beginning of the planting season, in May or June of each year. The dealers resell the leaf to packers or exporters in the city of Bahia, the principal shipping point, who receive substantially more than the amount paid to farmers. Farmers are rarely able to sell directly in the Bahia market.

Tobacco production in Bahia averaged about 69 million pounds, from 80,000 acres, during the period 1935-39. It declined somewhat during the middle war years but showed an increase as exports rose in 1944 and 1945 as a result of larger imports by Spain and the reopening of other European markets that had been largely cut off by wartime conditions. Bahia usually produces about 33 percent of Brazil's total tobacco output. (See table 2.)

Table 2. - Acreage, production, and yield of tobacco,  
State of Bahia, Brazil, 1935-45

Year of harvest	Acreage	Production	Yield per acre
	<u>Acres</u>	<u>1,000 pounds</u>	<u>Pounds</u>
1935 .....	86,609	74,123	856
1936 .....	69,188	61,980	896
1937 .....	72,894	60,593	831
1938 .....	87,251	75,298	863
1939 .....	86,156	72,586	842
1940 .....	92,181	70,206	762
1941 .....	82,351	66,717	810
1942 .....	81,704	65,661	804
1943 .....	80,992	65,036	803
1944 .....	92,183	78,195	848
1945 <u>a/</u> .....	-	70,000	-

a/ Preliminary estimate.

Source: Reports of the Brazilian Ministry of Agriculture and consular information.

The quality of Bahia's leaf tobacco varies considerably in the different zones of production - depending on soil conditions, rainfall, altitude, and the application of fertilizers. Since the establishment in 1935 of the Tobacco Institute of Bahia (Instituto Baiano de Fumo), efforts have been made to induce growers to produce leaf of better and more uniform quality. Tobacco experiment stations at Afonso Pena and São Gonçalo have conducted experiments in the development of new varieties and in the orientation of foreign-seed types. To date, however, the attempted introduction of foreign-seed types has not proved entirely successful.

The Institute also closely supervises the marketing of leaf tobacco. Four broad classifications for the commercial air-cured leaf, according to the zone of production, have been recognized. (See fig. 1.) These are as follows:

- (1) Mata - light-colored, free-burning, good-quality tobacco;
- (2) Feira - a less uniform type than Mata, both dark and light in color;
- (3) Sertão and (4) Caatinga - inferior in quality, compared with the others; generally poorly cured and prepared for market.

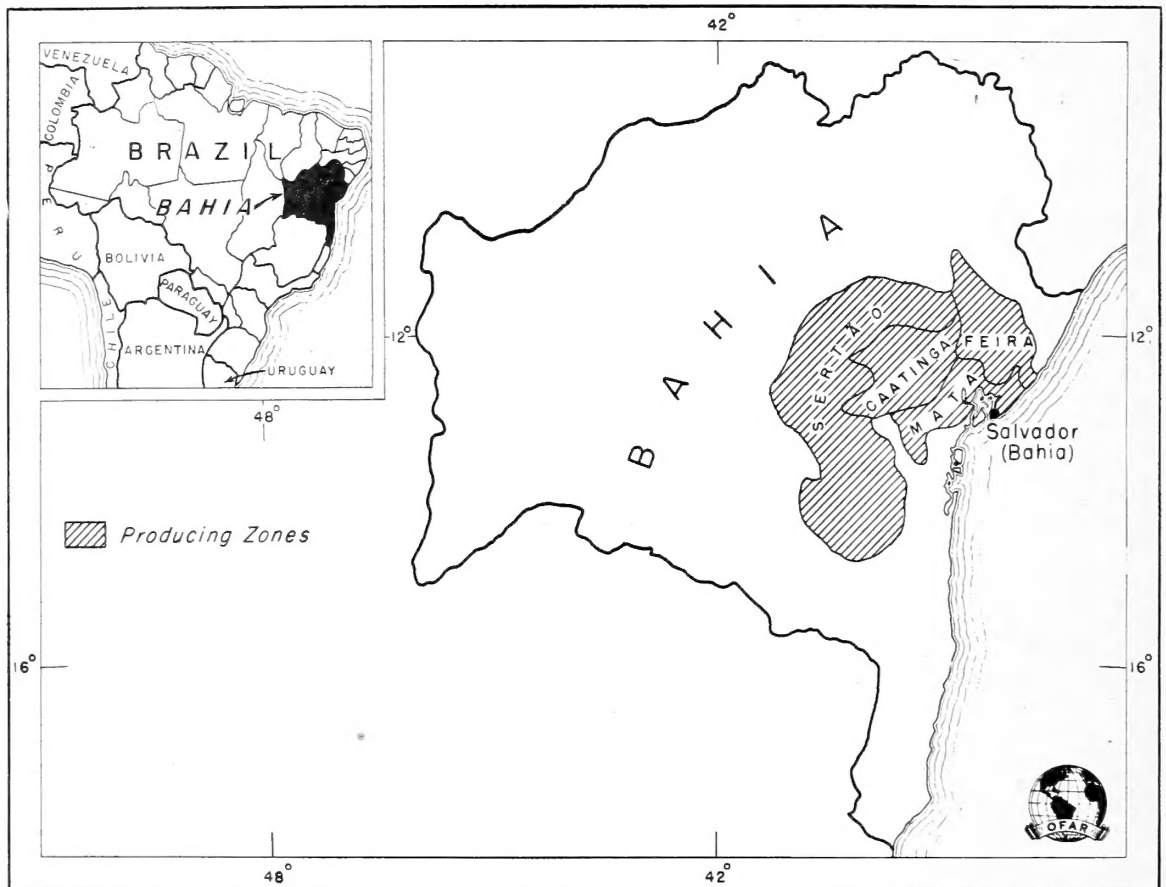


Figure 1. - Bahia State, Brazil, showing classification of air-cured tobacco according to producing zones.

In order to establish definite grade standards, enabling growers to prepare their product for export more uniformly as to quality, Decree Law No. 10218 was promulgated on August 12, 1942. As of possible interest

to United States growers and exporters, parts of this classification are quoted as follows:

Specifications and schedules for classifying Bahia leaf tobacco.

1.-The classifying of Bahia leaf tobacco (*Nicotiana tabacum* Lin.) under the name of "Brazil-Bahia," shall be done in accordance with the following factors:

- (a) Producing district,
- (b) drying process,
- (c) processing or curing,
- (d) length of leaves, and
- (e) quality.

2.-The four producing districts shall be named and delimited as follows:

Mata.--Composed of the districts of Picado and Berimbau, in the county of Santo Amaro, and the counties of S. Gongalo, Conceição da Feira, Cachoeira, S. Felix, Muritiba, Cruz das Almas, Maragogipe, S. Felipe, Afonso Pena, Nazare, Aratuípe, Santo Antonio de Jesus, S. Miguel, Amargosa, Jequitirica, Motuipe, and Areia.

Castings.--Containing the counties of Santo Estevão, Castro Alves, Ipirá, and Sta. Teresinha.

Feira.--Comprising the counties of Feira de Sant'Ana, Coração de Maria, Irará, Serrinha, Inhambupe, Entre Rios, Alagoinha, Catú, Pojuca, São Sebastião, and part of the county of Santo Amaro.

Sertão.--Including the counties of Riachão do Jacuipe, Monte Alegre, Baixa Grande, Mundo Novo, Capivarí, Rui Barbosa, Itaberaba, Andaraí, Maracás, Itirussú, Itaguara, Jaguara, Jiquié, Rio Novo, Boa Nova, and Poções.

3.-According to the process used in drying, Bahia leaf tobacco shall be divided into two categories, namely:

TG - air-cured - leaves which have dried naturally, in the shade, under a shed or shelter;

TE - flue-cured - leaves which have been dried artificially, with a stove or furnace.

4.-It shall be permissible to include a third category, after further deliberation, to apply to the leaves which have been dried naturally in the sun and exposed to the weather - TS.

5.-Air-cured Bahia tobacco, when dried and cured, shall be offered in four different ways:

- (a) Tobacco in hands;
- (b) loose leaves;
- (c) leaves in bundles;
- (d) stemmed leaves.

6.-Tobacco in hands is understood to mean from 7 to 10 leaves together, uniform in size and quality, tied at the end of the stems by a leaf, forming what is known as a "manoca" (hand).

7.-Loose leaves are leaves in bulk, with stem intact, generally separate from tobacco in hands.

8.-Leaves in bundles are those which are arranged one above the other, forming bundles which are uniform in size and quality.

9.-Stemmed leaves are those from which the midrib has been removed.

10.-The length of the leaves shall be indicated in centimeters and by the traditional names and prefixes adopted by the trade.

11.-Tobacco in hands shall be divided as to size of leaf into 10 classes:

- 1.-Leaves longer than 40 cm. (15.7 in.) or P.F.S. (Patente, fino, superior).
- 2.-Leaves 37-39 cm. (14.6-15.6 in.) or P.F. (Patente, fino).
- 3.-Leaves 34-36 cm. (13.4-14.5 in.) or P.P. (Patente, Patente).
- 4.-Leaves 31-33 cm. (12.2-13.3 in.) or P. (Patente).
- 5.-Leaves 28-30 cm. (11.0-12.1 in.) or 1st (Primeira).
- 6.-Leaves 25-27 cm. ( 9.8-10.9 in.) or 2nd (Segunda).
- 7.-Leaves 22-24 cm. ( 8.7-9.7 in.) or 22 (Segunda de segunda).
- 8.-Leaves 19-21 cm. ( 7.5-8.6 in.) or 3rd (Terceira).
- 9.-Leaves 16-18 cm. ( 6.3-7.4 in.) or 33 (Terceira de terceira).
- 10.-Leaves less than 15 cm. (6.2 in.) or 0 (Zero).

12.-Tobacco leaves which are more than 22 cm. (8.7 in.) long shall be designated as higher classes (*classes altas*) and those below this limit shall be called lower classes (*classes baixas*).

13.-Loose leaves in bulk shall be divided into:

- F.F.-Fine leaves, of a greater length than 22 cm. (8.7 in.).
- F.L.-Clean leaves, without distinction as to length.
- F.R.-Leaves and rejects, leaves shorter than 22 cm. (8.7 in.) and fragments of leaves left from grading.

14.-Stemmed leaves shall be divided into:

- XXA - Leaves in bundles - of a length greater than 22 cm. (8.7 in.).
- XXB - Leaves in bundles - shorter than 8.7 inches.
- XA - Leaves in bulk, of a length greater than 8.7 inches.
- XB - Leaves in bulk, shorter than 8.7 inches.
- BG - Coarse scrap (Bagago grosso) - larger fragments of stemmed leaves.
- BM - Fine scrap (Bagago miúdo) - smaller fragments of stemmed leaves.

15.-With respect to quality, the tobacco in hands shall show the following characteristics: Leaves sound, mature, of a uniform chestnut color on both sides, without any traces of overfermentation or black spots (bulk-burned), aromatic, elastic, smooth, strong in texture and having fine veins, free combustibility, a whitish, cohesive ash, and producing a slightly bluish smoke, free from impurities and foreign matter.

Tolerance.-Small holes and broken places which do not effect more than 5 percent of the leaf.

16.-Loose leaves, in bundles and stemmed, distinguished from tobacco in hands because of not satisfying the requirements given in the previous item; must be sound, free from impurities and foreign matter.

Tolerance.-Broken leaves, perforations, and spots which shall not exceed a total of 50 percent of the surface on the leaf.

The Tobacco Institute is also empowered by law to establish minimum prices on tobacco packed for export, delivered at Bahia warehouses, and

also the minimum prices paid to farmers. These prices are established in accordance with the provisions of two orders of the Federal Coordinator of Economic Mobilization, No. 78 of June 3, 1943, and No. 124 of August 27, 1943. Prices are changed from time to time by the Institute, according to the demands of the market. Complete reports on prices are not available, but indications are that for the past several seasons both farm and export prices have ranged considerably above the prewar level.

Farm prices for Bahia air-cured leaf during the period 1935-39 averaged about 3 cents per pound. In 1940, however, because of the closing of the major outlets in Germany and the Netherlands, prices declined to about 1.5 cents, and farmers were hard-pressed to weather the sharp decline in returns for their product. After November 1941, the minimum price paid to farmers was for a time 2.1 cents, and in 1942 it reached 5.6 cents. For the 1943-44 crop, the average price received by farmers was 6.8 cents, and for the 1944-45 crop, from 7.9 to 9.1 cents. It should be noted that these prices were usually considerably below the actual export prices for leaf, f.o.b. Bahia. A considerable rise in export demand, particularly that from Spain, during 1944 and 1945 was reflected in the higher prices obtained by farmers.

Minimum export prices are established each season by the Institute, in accordance with the provisions of the statute previously mentioned. The effect of these minimums can be clearly seen from data (table 3) showing minimum export prices, by grades and producing zones, in effect during the period January-October 1944. In 1938, the export price per pound for an average assortment of air-cured leaf was 5.1 cents. It declined to 3.9 cents in 1939 and in 1940 touched 3.5 cents. An increase occurred in 1941 and a further rise to 5.6 cents in 1942. According to export-valuation statistics, Bahia's tobacco exports in 1942 were worth 6.0 cents per pound and rose steadily until in 1945 they were valued at 18.4 cents per pound, an increase during the period of about 200 percent.

Continued production of leaf tobacco in Bahia State depends largely upon demand in foreign countries. This is the key to the future of tobacco in Bahia, since no more than 10 to 15 percent of the annual production is consumed within the State, or in other Brazilian States. The current market requirements of European countries are exerting a favorable influence on Bahia's tobacco outturn, even with the loss of the formerly important outlet in Germany. Spain, cut off from Philippine tobacco during the war, has sharply increased its takings of Bahia leaf, principally for use in dark cigarettes. The Argentine and the Netherlands will probably continue as important outlets for Bahia leaf. The future of Bahia tobacco appears to a great extent to depend on the recovery of the formerly large German market and the retention of the market developed in Spain during the war years. The reopening of a large-scale German market, which in prewar years took 40 percent of Bahia's exports, would have a most favorable effect on the State's tobacco-production prospects.

Table 3. - Minimum selling prices per pound for principal Bahia types of air-cured tobacco packed for export, 1943-44<sup>a/</sup>

Grade	Mata			Feira	Sertão
	Fine	Northern	Southern		
	U.S. cents	U.S. cents	U.S. cents	U.S. cents	U.S. cents
PFS .....	28.7	27.2	24.2	20.4	-
PF .....	24.2	22.0	18.9	18.9	-
PP .....	20.0	19.1	17.5	15.9	-
P .....	18.4	17.4	15.9	14.4	-
1 .....	15.9	15.1	13.9	12.1	-
2 .....	13.6	12.9	11.3	10.6	-
22 .....	11.3	10.6	9.1	8.3	-
3 .....	8.0	7.6	7.4	7.1	6.8
33 .....	7.7	7.3	7.1	6.8	6.5
0 .....	7.3	6.7	6.5	6.5	-

<sup>a/</sup> Minimum prices established by the Tobacco Institute of Bahia, in effect from January to October 1944, for 1943-44 crop and carry-over from previous crops.

Source: Consular reports. Converted from original currency;  
1 cruzeiro = 5 U. S. cents.

### Rio Grande do Sul

Tobacco has been grown on a commercial scale in the State of Rio Grande do Sul since about 1850. Rio Grande's crop of tobacco is usually exceeded by Bahia's, although in some recent years it ranked first among the tobacco-producing States of Brazil. The outturn of leaf in Rio Grande during the 5 years 1935-39 averaged about 62 million pounds annually, or approximately 30 percent of Brazil's total tobacco production. In 1944, production reached 78 million pounds. Early reports indicate that the State's total production in 1946 may have exceeded 100 million pounds.

Most of Rio Grande's production consists of types descended from seed imported from the United States. When air-cured, they bear some resemblance to Burley grown in this country. Flue-cured leaf produced in Rio Grande approximates United States flue-cured in color, although in general it is of inferior quality. Blands of these types are used in making the bulk of Brazil's cigarettes. In addition, there is a considerable outturn of native types, usually air-cured, which do not figure to any great extent in trade channels. They are used chiefly in the making of rope or twist tobacco, consumed in large quantities by inhabitants of the interior rural regions.

In Rio Grande, seeding is usually begun in August, the plants are set out from September to November, and most of the leaf is harvested from January to April. Since the State is considerably below the Equator, the seasons are the reverse of those in the United States. Yields usually range from 800 to 1,050 pounds per acre, which are favorable when compared with those in other countries. Several experiment stations located in Rio Grande are constantly seeking to improve cultural practices, introducing new varieties, and recommending the fertilizers most suitable to tobacco propagation. More progress has been made in this connection in Rio Grande do Sul than in most of Brazil's other tobacco-producing States.

The air-cured tobacco produced in Rio Grande is used primarily in blending with the locally produced flue-cured in the manufacture of cigarettes. Most of the State's air-cured leaf is shipped from Porto Alegre by coastal steamer to São Paulo and the Federal District (Rio de Janeiro) for manufacture. Some quantities are used locally in making small cigars, and exports usually account for from 5 to 10 million pounds. During the period 1938-42 commercial production of air-cured leaf in Rio Grande averaged about 40 million pounds annually. Production declined slightly during the next three seasons, but heavy demands for domestic manufacture and for export during 1945 resulted in sharply increased plantings in the fall of that year. Preliminary reports place the harvest of 1946 at about 66 million pounds. (See table 4.)

Table 4. - Production of flue-cured and air-cured tobacco in Rio Grande do Sul, Brazil, 1938-46

Year of harvest	Flue-cured	Air-cured
	<u>1,000 pounds</u>	<u>1,000 pounds</u>
1938 .....	11,464	28,109
1939 .....	15,741	51,808
1940 .....	13,117	36,045
1941 .....	14,176	49,163
1942 .....	16,336	32,628
1943 .....	16,535	35,274
1944 .....	23,148	38,801
1945 .....	18,188	26,457
1946 <u>a/</u> .....	38,029	66,138
<u>a/ Preliminary estimates.</u>		

Source: Consular reports.

Prices for air-cured have risen considerably during the past several seasons, although the extremely large outturn of 1946 served to reduce

them to somewhat less than those received for the 1945 crop. Prices for the seven grades of air-cured during the early part of the 1945-46 marketing season ranged from 3.9 cents per pound to 10.8 cents. This compared with a range of from 7.3 cents to 13.6 cents in 1944-45, when prices were about double those received for the 1942-43 crop. (For reported farm prices of air-cured and flue-cured tobacco in recent years, see table 5.)

Table 5. - Reported average prices per pound paid to producers for flue-cured and air-cured tobacco in the State of Rio Grande do Sul, Brazil, by grades, 1942-43 to 1945-46

Class and grade	1942-43	1943-44	1944-45	1945-46
	U. S. cents	U. S. cents	U. S. cents	U. S. cents
<u>Flue-cured</u>				
A .....	13.1	14.7	21.9-26.2	28.5
B .....	11.6	13.1	20.4-24.7	27.0
C .....	10.1	11.6	18.2-22.4	23.9
D .....	8.6	10.1	16.7-20.8	22.4
D2 .....	7.8	9.4	15.1-20.1	20.9
E .....	7.1	8.6	13.6-18.5	18.5
F1 .....	6.4	7.4	12.1-15.4	13.9
F2 .....	5.1	5.9	9.8-13.1	10.1
F3 .....	3.3	4.0	7.6-10.8	6.2
V .....	3.3	4.0	6.0- 8.5	6.2
<u>Air-cured</u>				
Clear I .....	6.0	6.8	13.6	10.8
Clear II .....	5.4	6.2	12.5	9.7
Yellow I .....	5.3	6.0	12.2	9.6
Yellow II .....	4.7	5.4	11.1	8.7
Brown I .....	4.5	5.3	10.8	8.2
Brown II .....	4.0	4.7	9.7	7.1
Brown III .....	2.6	3.3	7.3	3.9

Source: Consular reports. Converted at free rate of exchange; roughly, 1 cruzeiro = 5 U. S. cents.

Flue-cured tobacco was first produced commercially in the State of Rio Grande do Sul during the 1920's. The great increase in the production of recent years is the direct result of the sharp upward trend in cigarette consumption. During the period 1938-42, production of flue-cured in Rio Grande averaged about 14 million pounds annually. In 1944, the outturn amounted to about 23 million pounds, but unfavorable weather conditions, which reduced yields below normal, limited the 1945 crop to about 18 million pounds. As in the case of air-cured, heavy demands, both domestic and foreign, combined with low stocks and the small 1945 outturn resulted in larger plantings for the 1945-46 crop.



According to early reports, the harvest of 1946 amounted to a record of 38 million pounds. About 90 percent of Brazil's flue-cured tobacco is produced within Rio Grande.

The market for flue-cured leaf in Rio Grande do Sul is largely dependent on a large private concern, the Brazilian Leaf Tobacco Company (Cia Brasileira de Fumo em Folha). The center of this firm's operations is Santa Cruz, and the flue-cured area is in the region adjacent to that city. This company advances money to farmers for the erection of flue-curing barns and for the purchase of fertilizers and farm equipment. The funds advanced are repaid in installments over a period of years by deductions from sales of the grower's product to the company. The program of this firm is to encourage production in sufficient volume to meet the country's ever-increasing consumption of flue-cured leaf. To this end, its efforts have met with success, although the quality of the leaf is not considered equal to that produced in the United States.

The company has been instrumental in inducing growers to use fertilizers and, in conjunction with the State experiment station, has aided in furnishing information for combatting the most prevalent tobacco diseases, leaf wilt, mosaic disease, and blue mold. Dried blood from local packing houses, linseed meal, and castor-bean meal have been used with success as nitrogenous fertilizers. In addition, quantities of nitrate of soda and superphosphates, largely imported from Chile and the United States, have been used with success. Muriate of potash and sulphate of potash, also imported, are used whenever available. The most popular brands of fertilizers, together with the percentages of various plant foods they contain, are listed below:

Brand	Nitrogen	Phosphate	Potassium
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Vigor 24 .....	5	9	8
Vigor .....	7	11	9
17A .....	6	11	9
Trevo 17A .....	7	11	9
Standard .....	5	11	9
Standard-Extra ...	7	11.4	9.4
ABC .....	4.75	9	8

The application per acre reported to result in the best-quality tobacco contains 27 pounds of nitrogen, 62 pounds of phosphoric acid, and 27 pounds of potash.

Most of the flue-cured crop in Rio Grande is sold on the Santa Cruz market. Some is retained within the State for cigarette manufacture, but the bulk of the crop is shipped to Rio de Janeiro and São Paulo, Brazil's most important cigarette-manufacturing cities. Prior to 1943,

most of the crop was utilized by Brazil's domestic manufacturers, but in recent years foreign countries have purchased a considerable portion.

Rio Grande flue-cured leaf is sold under grades A, B, C, D, E, EE, F1, F2, and F3. Estimates place about 40 percent of the crop in the better grades of A through E. Prices to producers usually average only about one-third of the price obtained by United States growers of similar leaf. In recent years, however, unprecedented demands for flue-cured leaf pushed prices to new high levels. Reported prices paid to producers ranged from 3.3 cents per pound to 13.1 cents during the 1942-43 marketing season, but early in 1946 prices for corresponding grades ranged from 6.2 cents to 28.5 cents per pound, or about double the prices received 3 years earlier. (See table 5.) For a time in 1945, prices rose rapidly as a result of heavy domestic and foreign demand, and, since the 1945 crop was short, the Federal Coordinator of Economic Mobilization issued an order in March 1945, prohibiting exports, and establishing ceilings on prices paid to farmers. The primary purpose of this order was to enable domestic buyers to compete for the limited quantities of leaf available. After the market settled, the order was modified and on June 28, 1945, a new order was issued permitting the export of 2,000 tons of tobacco during the latter half of 1945. Later in that year restrictions on exports and prices were entirely removed. The large plantings for the 1945-46 crop were largely instrumental in the removal of these Government controls.

The Federal Government, however, on October 17, 1945, issued a new Decree Law, No. 19818, providing for the grading and supervision of Rio Grande do Sul tobacco for export. Certain portions of this law may be of interest to the United States tobacco industry, and these have been translated as follows:

I - Grades of Rio Grande do Sul tobacco leaf will be governed by the following factors:

- (a) Method of curing,
- (b) manner of presentation,
- (c) size,
- (d) color, and
- (e) quality.

II - As far as the curing process is concerned, tobacco leaf will be divided into two categories as follows:

Category TG - *Tabaco de Galpão* - or air-cured tobacco, includes tobacco leaf cured under shade or in a barn. This type is known as "fermented tobacco" when the leaf is soft, rather elastic, of natural coloration, fine aroma, and of easy combustibility and as "sterilized tobacco" when it has little elasticity and an aroma and coloration peculiar to this type of tobacco.

Category TE - *Tabaco de Estufa* - or flue-cured, includes tobacco dried by artificial heat to produce a dry and brittle leaf of irregular venation and structure.

III - After the curing is completed in the manner outlined in item II, the leaf will be graded as follows:

Group FM - *Folhas Manocadas* - or a bundle consisting of 20 to 25 leaves tied into hands at the end of the stalks by a tobacco leaf.

Group FS - *Folhas soltas* - consists of loose tobacco leaves.

Group FA - *Folhas arrumadas* - consists of tobacco leaves arranged in stacks.

Group FDA - *Folhas destaladas arrumadas* - consists of loose tobacco leaves in which the stem has been removed and leaves arranged evenly in stacks.

Group FDS - *Folhas destaladas soltas* - consists of loose tobacco leaves in which the stem has been removed.

IV - Air-cured tobacco leaves will be subdivided into five other groups as follows:

Group 1 - includes broad leaves over 60 cm. (23.6 in.) in length.

Group 2 - includes narrow leaves over 60 cm. (23.6 in.) in length.

Group 3 - includes broad leaves of 40 to 60 cm. (15.7-23.6 in.) in length.

Group 4 - includes narrow leaves of 40 to 60 cm. (15.7-23.6 in.) in length.

Group 5 - includes broad and narrow leaves under 40 cm. (15.7 in.) in length.

V - A broad leaf should have a breadth equal to one-third its length.

VI - Flue-cured tobacco leaf should have a certain uniformity in relation to its size.

VII - Coloration of tobacco leaf will be divided into eight classes as follows:

Class AA - Light yellow  
Class AB - Yellow  
Class AC - Orange-yellow  
Class BA - Light brown  
Class BB - Brown  
Class BC - Dark brown  
Class CA - Light green  
Class CB - Dark green

VIII - Air-cured tobacco should correspond to class BA, BB, and BC.

IX - The quality of air-cured tobacco leaf will be divided into three types as follows:

Type 1 - Includes leaves as classified in item II, free of spots, dilaceration, and foreign matter.

Tolerance - Insignificant perforations.

Type 2 - Includes leaves as classified in item II, free of foreign matter.

Tolerance - Few spots, small perforations, as well as small and insignificant dilacerations.

Type 3 - Includes leaves as classified in item II, free of foreign matter.

Tolerance - Spots, dilacerations, and perforations all over the leaf.

X - The quality of flue-cured tobacco leaf will be divided into three types as follows:

Type 1 - Includes leaves entirely free of gray spots and foreign matter.

Tolerance - Insignificant defects and some small perforations.

Type 2 - Includes leaves free of foreign matter.

Tolerance - Few perforations, small gray spots, and insignificant defects.

Type 3 - Includes leaves free of foreign matter.

Tolerance - Some perforations, gray and dark spots, and insignificant defects.

XI - By insignificant defects is meant small spots produced by rust.

XII - Class AA tobacco leaf must have a fine, smooth structure, with entirely dry and brittle venation.

XIII - The moisture in the tobacco leaf should not exceed the following limits:

- (a) 20 percent for air-cured fermented tobacco;
- (b) 15.5 percent for air-cured sterilized tobacco;
- (c) 14 percent for flue-cured tobacco.

XIV - Tobacco leaf which does not conform to the present regulations shall be classified as of poor quality.

XV - Humid, moldy leaves, containing ammonia, dry, burnt on edges, attacked by pests, including fragments of leaves, will be graded as refuse.

The outlook for Rio Grande do Sul's tobacco production appears extremely favorable. The State produces the bulk of Brazil's cigarette tobacco, and reports indicate that cigarette consumption is undergoing a steady increase. High duties and other taxes virtually exclude foreign leaf, except small amounts of cigar wrapper, from the Brazilian market. This protection to Rio Grande's tobacco farmers, plus the ever-increasing cigarette consumption, should enable the State's tobacco growers to continue to find a ready market for their leaf within the country. The export demand, while not so important as that in Bahia, showed substantial gains during the later war years and may continue to provide outlets for substantial quantities of leaf, both air-cured and flue-cured. The export grading regulations recently promulgated should have the effect of stabilizing the quality of the Rio Grande leaf shipped to world markets.

### Minas Gerais

Minas Gerais ranks third among Brazil's tobacco-producing States. Production of leaf, principally dark air-cured native types, used in the manufacture of twist or roll tobacco and strong native cigarettes, averaged 29 million pounds during the period 1935-39 but declined considerably in recent years. (See table 1.) The twist or rope tobacco produced in Minas Gerais is famous in Brazil, and sizable amounts are shipped to the large urban centers in other States. Only insignificant amounts of Minas Gerais tobacco enter foreign trade.

In making rope tobacco, large, thick, partially cured leaf-strips are lapped, twisted into a cord, and wound on a windlass stick about a yard in length. After drying a few days, the coil is dipped into tobacco extract to which sweetening and flavoring materials have been added. It is then twisted much tighter and wound again on the windlass. This operation is repeated several times, the rolls having been dried in the sun each time for greater absorption of the moistening liquid. The finished product is a hard, glistening roll called fumo em cordo, sold on the local markets by measure or weight at a price equal to 8 or 9 cents a pound. 1/

The peasants of Brazil use twist tobacco almost exclusively, since it is not subject to internal revenue taxes, and this provides an inexpensive method of satisfying their craving for tobacco.

### Santa Catarina

The tobacco of Santa Catarina consists chiefly of native cigar types (air-cured). In recent years, however, flue curing has been undertaken and a substantial increase in the area devoted to flue-cured leaf is anticipated. Production of tobacco in the State during the period 1935-39 averaged about 8 million pounds annually, but larger outturns occurred during the war years.

The 1946 crop, harvested in late 1945 and early 1946, is estimated at about 12 million pounds. Santa Catarina usually ranks fourth among Brazil's tobacco-producing States, its production being exceeded only by that of Bahia, Rio Grande do Sul, and Minas Gerais.

The most interesting recent development in the Santa Catarina tobacco industry is the successful introduction of flue curing. In 1938

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1/ COLEMAN, L. M. Latin American Tobacco Yesterday and Today. Agr. in the Americas 5: 103-105; 114, illus.

experimental work in flue curing was undertaken by the Brazilian Leaf Tobacco Company. These experiments were continued in the area around Blumenau, where soils and climatic conditions proved favorable. For a number of years production did not exceed 300,000 pounds. In 1944 more intensive experiments were begun, with a view toward increasing the outturn. As in the case of Rio Grande do Sul, heavier domestic demand for cigarette tobaccos was the chief factor promoting interest in the expansion of flue-cured production. Experiments continued during the 1945 season proved so successful that trade circles anticipate an outturn of from 4 to 5 million pounds within the next few years. The 1946 crop, however, amounted to only about 400,000 pounds.

Reports indicate that weather conditions in Santa Catarina are more favorable than in the Santa Cruz region of Rio Grande do Sul, and yields are considerably higher than in the latter State. A total of 115 barns have been erected in the region adjacent to Blumenau, and a warehouse and redrying plant are nearing completion, according to latest information. The future of flue-cured production in Santa Catarina appears to be assured because of ever-increasing domestic and foreign consumption of light cigarettes.

#### Other States

Tobacco is produced in varying quantities in every Brazilian State and Territory. With the exception of that of the States already mentioned, however, most of the outturn does not figure in interstate or international trade. The other States each produce from 200,000 pounds to about 8 million pounds of tobacco annually, chiefly dark air-cured native types. These tobaccos are used principally in the preparation of twist tobacco.

#### TRADE

Brazil is the most important exporter of leaf tobacco in South America. In prewar years (1935-39) it ranked fifth among the exporting countries of the world after the United States, the Netherlands Indies, Greece, and Turkey. The large exportable surplus of leaf, approximately one-third the country's total production, eliminated the necessity for any substantial importation. Only small quantities of cigarette leaf and cigar wrappers were imported.

#### Exports of Leaf Tobacco

Brazil has exported leaf tobacco in substantial quantities for several centuries. As early as 1821, an export of 15 million pounds was recorded. Exports made rapid increases during the latter half of the nineteenth century and in 1902 reached the record figure of 100 million pounds. During the period 1923-27, they averaged 69 million pounds annually. For the 5 years 1930-34, they averaged 66 million pounds but

increased to an average of 71 million in 1935-39. Export leaf is packed in bales weighing about 165 pounds.

Northern-European markets, particularly Germany and the Netherlands, for many years prior to World War II were Brazil's chief outlets for leaf tobacco. During the war, however, most of these markets were cut off. Although their loss was offset to some extent by sharply increased shipments to Spain, exports averaged only 43 million pounds during the period 1940-44, or about 40 percent less than during the immediate prewar period. In 1945, heavy demands from liberated areas and continued large purchases by Spain and Argentina pushed exports to the high figure of 69 million pounds. (See table 6.) Preliminary reports indicate that 1946 exports may set a new record for recent years. During the period January-June 1946, Brazil's exports of leaf had already amounted to more than 60 million pounds. Usually leaf exports account for about 97 percent of Brazil's total tobacco exports, with cigars and twist tobacco making up most of the remainder.

Table 6. - Exports of leaf tobacco from Brazil, by countries of destination, average 1935-39, annual 1941-45

Country of destination	Average : 1935-39	1941	1942	1943	1944	1945
	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000
	: pounds	: pounds	: pounds	: pounds	: pounds	: pounds
	:	:	:	:	:	:
Algeria .....	1,998	-	-	-	-	3,074
Argentina .....	11,037	14,594	12,374	11,352	10,680	12,025
Belgium & Luxembourg ...	1,441	-	-	-	-	3,802
France .....	1,680	-	-	-	-	4,616
Germany .....	30,375	-	-	-	-	-
Morocco .....	a/	a/	a/	-	5,815	7,223
Netherlands .....	18,247	-	-	-	-	6,358
Spain .....	2,006	14,938	18,693	14,747	37,428	18,081
Sweden .....	785	825	1,144	5,614	1,834	3,487
Switzerland .....	292	4,209	3,503	1,131	2,334	4,962
Uruguay .....	2,397	3,186	2,663	1,879	3,453	2,131
Others .....	436	1,605	2,249	727	1,721	3,448
Total .....	70,694	39,357	40,626	35,450	63,265	69,207

a/ If any, included with "others."

Source: Brazilian Foreign Commerce Annual and U. S. consular reports.

### Principal Markets

Germany, for many years prior to World War II the chief customer for Brazilian leaf, took an annual average of 25 million pounds during

the period 1923-27, or about 36 percent of the total. German takings during the next 7 years remained fairly steady, averaging about 25 million pounds. Favored by barter arrangements during the immediate prewar (1935-39) period, exports to Germany increased to an average of 30 million pounds and were about 42 percent of total leaf exports.

The wartime loss of the German market immediately had a depressing effect on prices for leaf, particularly in Bahia, where most of the exports originated. According to available information, Germany has imported no Brazilian leaf since early in 1940. The reopening of this market to substantial amounts of Brazilian leaf obviously would have a most favorable effect on Brazil's tobacco production.

In Germany, Brazilian leaf was used largely as a filler in cigars and competed only indirectly with United States leaf. Imports from the United States were used almost exclusively in cigarettes, smoking mixtures, and chewing tobacco. If supplies of leaf for cigar fillers had not been available in Brazil, Germany would have purchased more leaf from other countries and presumably would have taken larger quantities from the United States.

The Netherlands in prewar years took substantial quantities of Brazilian (Bahia) cigar leaf, primarily for use in cigar fillers. As in the case of Germany, Brazilian leaf competed only indirectly with leaf imported from the United States. The Dutch likewise used United States leaf almost exclusively for the manufacture of cigarettes, smoking mixtures, and chewing tobacco.

Exports of Brazilian tobacco to the Netherlands averaged 11 million pounds annually during the period 1930-34 and increased to 18 million in 1935-39. The market was cut off during the war years, but in 1945 the Netherlands began again to purchase Brazilian tobacco, taking about 6 million pounds of leaf. Substantial shipments to this market were reported for the first half of 1946.

Argentina has for many years been a steady customer for Brazilian tobacco. Exports, chiefly Bahia air-cured leaf, averaged 11 million pounds during 1935-39 and 12 million during 1941-45. In Argentina most of the Brazilian tobacco imported is used in the manufacture of dark cigarettes. Argentina has experimented with the production of Brazilian-seed leaf, in order to lessen its dependence on imports, but to date these efforts have met with little success. This market should, therefore, remain an outlet for large amounts of Brazilian leaf.

In recent years, Spain has become the most important purchaser of Brazil's leaf tobacco. Although such exports averaged only 2 million pounds in 1935-39, during the war years, when supplies from the Philippines were cut off, takings of Brazilian leaf increased tremendously. Exports totaled 19 million pounds in 1942, 15 million in



1943, and in 1944 reached the high figure of 37 million. (See fig. 2.) In 1945, exports to Spain dropped to 18 million pounds, but early reports indicate that 1946 exports may have approximated the large shipments during 1944. The Spanish demand for both air-cured and flue-cured leaf produced in Rio Grande do Sul, as well as for Bahia cigar leaf, has proved especially beneficial to growers in those States.

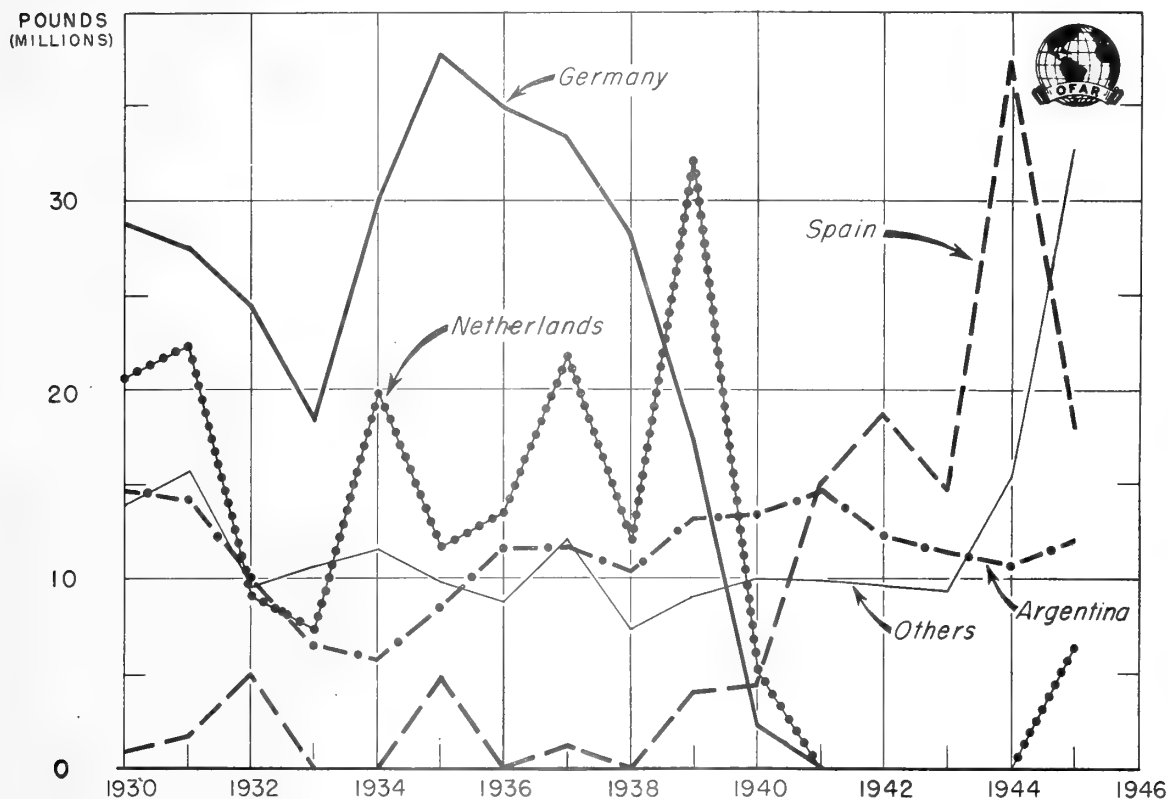


Figure 1. - Exports of leaf tobacco from Brazil, by principal countries of destination, 1930-45.

The retention of the newly acquired and important Spanish market would be of greatest benefit to the Brazilian tobacco industry. As long as the Philippines are unable to supply their formerly large Spanish market with sufficient leaf to meet its requirements, exports from Brazil to Spain will probably remain at high levels.

#### Other Markets

Several countries other than those already mentioned import sizable amounts of Brazilian leaf. During the war period, in particular, Sweden, Switzerland, and Uruguay increased their imports. In 1945 exports to France, Belgium, and Morocco were far above prewar levels. Exports to most of these countries consisted of both Bahia cigar leaf and Rio Grande

do Sul leaf, air-cured and flue-cured. Prospects early in 1946 indicated that flue-cured exports that year, chiefly to Uruguay and Sweden, might reach 5 million pounds.

Table 7. - Exports of cigars and cigarettes from Brazil, by countries of destination, average 1935-39, annual 1941-45

Country and item	Average: 1935-39	1941	1942	1943	1944	1945
	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000
	: pieces	: pieces	: pieces	: pieces	: pieces	: pieces
Cigars: <u>a/</u>						
Argentina .....	580:	728:	653:	878:	655:	1,012
Belgium & Luxemburg .....	444:	- :	- :	- :	- :	2
Denmark .....	163:	- :	- :	- :	- :	-
Germany .....	834:	- :	- :	- :	- :	-
Italy .....	83:	- :	- :	- :	- :	-
Netherlands .....	254:	- :	- :	- :	- :	-
Netherlands W. Indies ....	<u>b/</u> :	528:	1,047:	728:	286:	1,665
Norway .....	90:	- :	- :	- :	- :	<u>b/</u>
Portugal .....	296:	680:	1,506:	769:	1,279:	2,255
Switzerland .....	170:	210:	355:	- :	277:	966
Union of S. Africa .....	22:	304:	184:	55:	20:	163
United Kingdom .....	93:	<u>b/</u> :	2:	1,190:	500:	1,025
Uruguay .....	258:	330:	367:	221:	152:	117
Others .....	225:	343:	317:	175:	238:	228
Total .....	3,512:	3,123:	4,431:	4,016:	3,407:	7,433
	: Pounds	: Pounds	: Pounds	: Pounds	: Pounds	: Pounds
Cigarettes:						
Bolivia .....	79:	15,137:	37,937:	31,986:	27,339:	6,378
Colombia .....	2,013:	- :	- :	- :	- :	-
French Guiana .....	- :	12,125:	7,738:	3,651:	9,458:	-
Italy .....	2,567:	- :	- :	- :	- :	-
Portugal .....	1,442:	300:	1,455:	- :	- :	-
United Kingdom .....	709:	- :	- :	- :	1,307:	-
Others <u>c/</u> .....	3,126:	212:	139:	1,045:	27:	106
Total .....	9,936:	27,774:	47,269:	36,682:	38,131:	6,484

a/ Includes cigarillos.

b/ If any, included with "other."

c/ Chiefly, Spain.

Source: Brazilian Foreign Commerce Annual and U. S. consular reports.

#### Exports of Tobacco Products

Brazil's exports of tobacco products usually amount to not more than 3 percent of the total tobacco-export trade. Exports of cigars,

chiefly to European countries and Argentina, averaged 3.5 million pieces during the years 1935-39. During the war years, Portugal and the Netherlands West Indies were the principal importers. In 1945, cigar exports reached a record total of 7.4 million pieces.

Cigarette exports are insignificant. In prewar years (1935-39) they averaged only 10,000 pounds annually. Increases occurred during the war, but in 1945 only 6,000 pounds were exported. In recent years Bolivia and French Guiana have been the chief customers for Brazilian cigarettes. (See table 7.)

Most of Brazil's exports of tobacco products consist of twist, the bulk of which originate in Rio Grande do Sul. In prewar years, exports averaged 1,139,000 pounds annually, and the principal destinations were Uruguay and Germany. During the war years exports to Uruguay accounted for practically all the twist tobacco shipped from Brazil. Cut-tobacco exports, chiefly to Uruguay, averaged 163,000 pounds during 1935-39. They declined during the war years and were destined mostly to French Guiana. (See table 8.) Other products do not figure appreciably in Brazil's tobacco-export trade. Small quantities of stems and snuff are usually exported each year.

Table 8. - Exports of twist and cut tobacco from  
Brazil, average 1935-39, annual 1940-44

Year	Twist	Cut tobacco
	Pounds	Pounds
Average 1935-39 ...	1,138,623	163,040
1940 .....	1,919,988	45,055
1941 .....	1,319,771	67,833
1942 .....	1,639,601	a/
1943 .....	2,258,646	13,098
1944 .....	2,578,765	30,077

a/ Not available.

Source: Official trade statistics.

#### Imports of Leaf and Products

Foreign tobacco accounts for less than 1 percent of Brazil's total requirements. During the period 1935-39, imports of leaf tobacco averaged only 772,000 pounds, principally from Belgium, China, and the Netherlands (table 9). During the war years, imports, mostly from the United States, declined to less than one-half the prewar average. United States shipments to Brazil consist largely of flue-cured and

Burley for use in blending with domestic leaf in the manufacture of quality cigarettes and cigar wrapper. Prior to the war, most of the wrapper used in Brazil's tobacco factories was obtained from Netherlands Indies leaf, purchased at auction on the markets of the mother country. Brazil's virtual self-sufficiency in tobacco, and the protection afforded domestic producers through customs duties and other taxes, precludes any great increase in purchases of foreign leaf. Such quantities as are imported, however, probably will come principally from the United States, with the exception of the Sumatra wrapper, which is preferred to United States types.

Table 9. - Imports of leaf tobacco into Brazil, by countries of origin, average 1935-39, annual 1941-45

Country of origin	Average : 1935-39	: 1941	: 1942	: 1943	: 1944	: 1945
	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000	: 1,000
	: pounds	: pounds	: pounds	: pounds	: pounds	: pounds
	:	:	:	:	:	:
Belgium & Luxemburg .....	273 :	- :	- :	- :	- :	- :
China .....	197 :	- :	- :	- :	- :	- :
Hong Kong .....	32 :	- :	- :	- :	- :	- :
Netherlands .....	166 :	19 :	- :	- :	- :	- :
United States .....	61 :	259 :	295 :	175 :	445 :	285 :
Others .....	43 :	15 :	2 :	- :	22 :	22 :
Total .....	772 :	293 :	297 :	175 :	467 :	307 :

Source: Brazilian Foreign Commerce Annual and U. S. consular reports.

Imports of tobacco products into Brazil are negligible and, prior to 1939, were included in one category in foreign-trade statistics. During the prewar period, such imports amounted to less than 2,000 pounds annually. Increasing during the war, they consisted mostly of United States cigarettes, which are popular in Brazil but also very expensive in comparison with domestic brands. Recent reports indicate that the retail price of popular United States brands of cigarettes is about treble the price of popular local brands. Some smoking tobacco is imported, but practically no foreign cigars enter the Brazilian market. As in the case of leaf imports, the protection offered by duties and consumption taxes act to restrict imports of tobacco products. Although foreign tobacco products, particularly United States cigarettes and smoking mixtures are popular, only a few wealthy customers in the large urban centers are able to afford them.

#### UTILIZATION

##### By Manufacturers

Tobacco products are manufactured principally in the Federal District (Rio de Janeiro) and in the States of São Paulo, Rio Grande do

Sul, Bahia, and Pernambuco. In recent years, production of cigarettes has increased steadily, although cigar manufacture has remained fairly constant. Output of smoking tobacco has risen above the prewar level. Other tobacco products, except twist tobacco for which definite figures are not available, are relatively unimportant in Brazil.

Cigarettes are manufactured in every Brazilian State, although the factories producing them are largely concentrated in the Federal District and São Paulo. During the period 1935-39, about 13.4 billion cigarettes were made in Brazil, and in 1940, nearly 16 billion. Although statistics are not available covering cigarette manufacture for years subsequent to 1940, trade sources are of the opinion that production has increased about 10 percent per year and that the current monthly production approximates 2 billion pieces. This would indicate that Brazilian factories are now producing nearly double the average quantity manufactured during 1935-39.

Only insignificant quantities of imported leaf, chiefly flue-cured and Burley originating in the United States, are utilized in the manufacture of cigarettes. Most of the tobacco used in the country's cigarette factories, which are for the most part fully equipped with machinery, consists of flue-cured and air-cured leaf from Rio Grande do Sul. No statistics are available regarding the break-down on types of leaf utilized in the factories. Each package usually contains 20 cigarettes, and retail prices for domestic brands range from about 5 to 25 U. S. cents. In 1945, popular brands of United States cigarettes were retailing for about 35 cents per package.

The cigar-manufacturing industry is largely centered in Bahia, the State which accounts for most of Brazil's cigar leaf. This State usually produces about 75 percent of all cigars made within the country. Although statistics are not available regarding total production of cigars in recent years, indications are that the output of this product has remained fairly stable, or possibly has declined somewhat below the prewar level. In this connection, the difficulty in obtaining sufficient quantities of Sumatra cigar wrapper during the war years may have restricted production, since Brazilian consumers prefer the Netherlands Indies wrappers to those available in the United States. Imported wrappers are used almost exclusively, although the filler and binder for Brazilian cigars are usually of Bahia types.

Output of cigars reported for internal-revenue tax purposes averaged 179 million pieces during the period 1935-39 and in 1940 amounted to 181 million. In addition, about 20 million cigars, not made in reporting establishments, should be included in the country's output. The total cigar production in Brazil may be roughly estimated, therefore, at 200 million pieces annually. Most of the domestic production is by hand in contrast to the cigarette industry, which is largely mechanized. (For cigar and cigarette production by principal States, see table 10.)

Table 10. - Production of cigars and cigarettes in Brazil, by principal States, average 1935-39, annual 1939-40

State	Average 1935-39	1939	1940
	<u>1,000 pieces</u>	<u>1,000 pieces</u>	<u>1,000 pieces</u>
Cigars:			
Bahia .....	131,745	125,271	138,745
São Paulo .....	18,589	5,968	6,964
Rio Grande do Sul .....	6,359	6,193	6,995
Santa Catarina .....	5,369	10,992	(
Sergipe .....	7,383	4,609	( 27,963
Others .....	9,630	6,555	(
Total .....	179,075	159,588	180,667
Cigarettes:			
Federal District .....	4,884,460	4,798,140	4,973,640
São Paulo .....	4,900,660	3,605,060	5,945,800
Pernambuco .....	1,221,540	1,343,000	a/
Rio Grande do Sul .....	775,760	982,520	943,200
Bahia .....	738,580	804,680	833,560
Others .....	889,640	1,224,680	3,159,860
Total .....	13,410,640	12,758,080	15,856,060

a/ Included with "others."

Source: Brazilian Ministry of Finance.

Twist tobacco is not subject to taxation, and figures are, therefore, not available covering its manufacture. The quantity of twist or rolled tobacco produced, however, may be roughly estimated at about 50 million pounds, or from 40 to 50 percent of all Brazil's tobacco manufactures. Twist is manufactured chiefly in the rural regions, and its use constitutes the principal form of tobacco consumption among the low-income groups throughout all Brazil. It is used in roll-your-own cigarettes, for pipe smoking, and to some extent for chewing.

The manufacture of smoking tobacco has increased in recent years. During the period 1933-37, the output of this product averaged 2.5 million pounds annually, but in 1940 it amounted to 3.6 million. Reports indicate that production of smoking tobacco now approximates 4 million pounds per year. Production of snuff and chewing tobacco is insignificant, since Brazilian consumers show marked preferences for other forms of tobacco products.

#### By Consumers

Brazil's population may be estimated at 46 million persons. Based on this population figure and the apparent domestic disappearance of

about 120 million pounds of leaf tobacco per year, the country's per capita consumption of tobacco products may be placed at between 2.5 and 3 pounds. Ready-made cigarettes and twist (used in hand-rolled cigarettes, for pipe smoking, and to some extent for chewing) account for the bulk of this consumption. Domestic leaf tobacco utilized in the manufacture of products retained for home consumption may be broken down approximately as follows:

	<u>Million pounds</u>
Cigarettes .....	60
Twist .....	50
Cigars .....	5
Smoking tobacco .....	4
Other forms .....	<u>1</u>
Total .....	120

The most significant increase in consumption in recent years has been in the form of prepared cigarettes. This increase is attributable to a number of factors. High wages during the war years provided consumers with more ready cash for the purchase of tobacco products, particularly for ready-made cigarettes. Concentration of population in urban areas undergoing industrial expansion has placed larger numbers of consumers in an environment conducive to the smoking of the prepared, as opposed to hand-rolled, cigarettes, utilizing chiefly scrapings of tobacco twist. Younger Brazilian smokers are shifting to cigarettes as the socially preferred form of tobacco consumption. The increase in the number of women smokers, especially in the cities, has also accentuated the upward trend in cigarette consumption. This trend may be expected to continue as long as employment and wages are at high levels. Today, probably one-half Brazil's total tobacco consumption is in the form of prepared cigarettes.

United States cigarettes found favor in Brazil during the war years, particularly in the coastal cities, but usage of these is limited by the protection afforded locally made brands through duties and consumption-tax differentials. The outlook for increased consumption of imported cigarettes is not favorable.

Consumption of other tobacco products has not shown an upward trend comparable to that of cigarettes. Cigar consumption is little, if any, above the prewar level, although expansion in cigar usage may have been hampered during the war by shortages of the preferred Sumatra wrapper. Usage of smoking tobacco has increased somewhat, but consumption of twist is probably below prewar levels, owing to the shift of consumer preference toward prepared products, particularly cigarettes. Consumption of snuff and chewing tobacco is relatively insignificant and probably will remain so in the future.

The larger consumption of tobacco products in Brazil in recent years, accounted for chiefly by greater usage of prepared cigarettes, augurs well for the domestic growers and manufacturers of leaf tobacco. Growers in Rio Grande do Sul, particularly, should profit from this increase, since most of Brazil's cigarette leaf is produced within that State. Domestic manufacturers should be able to turn out acceptable tobacco products, made from the numerous varieties of Brazilian-grown leaf, in sufficient quantities to meet all consumer requirements. Both growers and manufacturers are in a favorable position to maintain the country's tobacco industry, virtually independent of foreign supplies, through the protection afforded by duties and other forms of taxation upon which the Government depends for a considerable portion of its revenues.